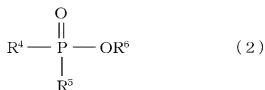


**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-16. (Canceled).

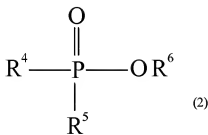
17. (Currently Amended) A spherical annular seal member ~~which is used particularly in an exhaust pipe spherical joint~~, comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a heat-resistant material containing expanded graphite and an organic phosphorus compound, and the reinforcing member constituted by the metal wire net integrated with said heat-resistant material in mixed form, an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth surface in which said heat-resistant material and said reinforcing member are integrated in mixed form, wherein said heat-resistant material contains 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):



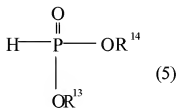
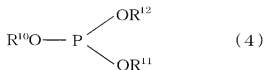
wherein R<sup>4</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>5</sup> and R<sup>6</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18.

18. (Currently Amended) A spherical annular seal member ~~which is used particularly in an exhaust pipe spherical joint,~~ comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a heat-resistant material containing expanded graphite and an organic phosphorus compound, and the reinforcing member constituted by the metal wire net integrated with said heat-resistant material in mixed form, an outer surface of said partially convex spherical surface

exposed to an outside in said outer layer being formed into a smooth surface in which said heat-resistant material and said reinforcing member are integrated in mixed form, wherein said heat-resistant material contains 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):



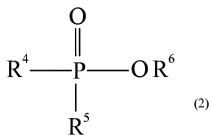
wherein R<sup>4</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>5</sup> and R<sup>6</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, the phosphorous ester being selected from a phosphorous triester which is represented by the following general formula (4) and a phosphorous diester or a phosphorous monoester which is represented by the following general formula (5):



wherein each of  $\text{R}^{10}$ ,  $\text{R}^{11}$ , and  $\text{R}^{12}$  is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of  $\text{R}^{13}$  and  $\text{R}^{14}$  is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, providing that a case where both of  $\text{R}^{13}$  and  $\text{R}^{14}$  are hydrogen atoms is excluded.

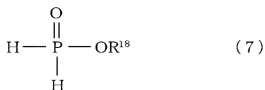
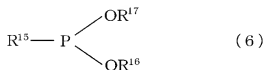
19. (Currently Amended) A spherical annular seal member which is used particularly in an exhaust pipe spherical joint, comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net

and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a heat-resistant material containing expanded graphite and an organic phosphorus compound, and the reinforcing member constituted by the metal wire net integrated with said heat-resistant material in mixed form, an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth surface in which said heat-resistant material and said reinforcing member are integrated in mixed form, wherein said heat-resistant material contains 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):



wherein R<sup>4</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>5</sup> and R<sup>6</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a

carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, the hypophosphorous ester being a hypophosphorous diester (phosphonite) which is represented by the following general formula (6) or a hypophosphorous monoester which is represented by the following general formula (7):



wherein R<sup>15</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>16</sup>, R<sup>17</sup>, and R<sup>18</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18.

20. (Currently Amended) A spherical annular seal member which is used particularly in

an exhaust pipe spherical joint, comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a lubricating composition constituted of at least boron nitride and at least one of alumina and silica, and the reinforcing member constituted by the metal wire net integrated with said lubricating composition in mixed form, an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth lubricating sliding surface in which said lubricating composition and said reinforcing member are integrated in mixed form, wherein said heat-resistant material containing 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):

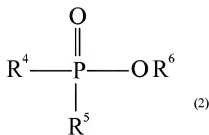


wherein  $R^4$  is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of  $R^5$  and  $R^6$  is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18.

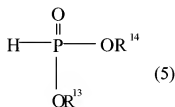
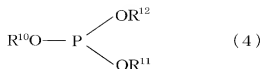
21. (Currently Amended) A spherical annular seal member ~~which is used particularly in an exhaust pipe spherical joint~~, comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a lubricating composition constituted of at least boron nitride and at least one of alumina and silica, and the reinforcing member constituted by the metal wire net integrated with said lubricating composition in mixed form, an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth lubricating sliding surface in which said lubricating composition and said reinforcing member are integrated in mixed form, wherein said heat-resistant material containing 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic



phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):



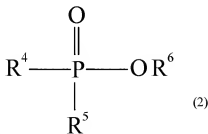
wherein R<sup>4</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>5</sup> and R<sup>6</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, the phosphorous ester being selected from a phosphorous triester which is represented by the following general formula (4) and a phosphorous diester or a phosphorous monoester which is represented by the following general formula (5):



wherein each of  $\text{R}^{10}$ ,  $\text{R}^{11}$ , and  $\text{R}^{12}$  is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of  $\text{R}^{13}$  and  $\text{R}^{14}$  is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, providing that a case where both of  $\text{R}^{13}$  and  $\text{R}^{14}$  are hydrogen atoms is excluded.

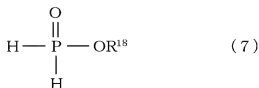
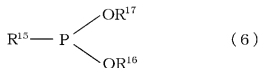
22. (Currently Amended) A spherical annular seal member which is used particularly in an exhaust pipe spherical joint, comprising: a spherical annular base member defined by a cylindrical inner surface, a partially convex spherical surface, and large- and small-diameter-side annular end faces of said partially convex spherical surface; and an outer layer formed integrally with said partially convex spherical surface of said spherical annular base member, said spherical annular base member including a reinforcing member made from a compressed metal wire net

and a heat-resistant material filling meshes of said metal wire net of said reinforcing member, compressed in such a manner as to be formed integrally with said reinforcing member in mixed form, and containing expanded graphite and an organic phosphorus compound, said outer layer including a lubricating composition constituted of at least boron nitride and at least one of alumina and silica, and the reinforcing member constituted by the metal wire net integrated with said lubricating composition in mixed form, an outer surface of said partially convex spherical surface exposed to an outside in said outer layer being formed into a smooth lubricating sliding surface in which said lubricating composition and said reinforcing member are integrated in mixed form, wherein said heat-resistant material containing 0.1 to 10.0 wt.% of said organic phosphorus compound and 90.0 to 99.9 wt.% of said expanded graphite, and said organic phosphorus compound is selected from the group consisting of an organic phosphinic acid, an organic phosphinic ester, a phosphorous ester and a hypophosphorous ester, the organic phosphinic acid or the organic phosphinic ester being represented by the following general formula (2):



wherein R<sup>4</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>5</sup> and R<sup>6</sup>

is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, the hypophosphorous ester being a hypophosphorous diester (phosphonite) which is represented by the following general formula (6) or a hypophosphorous monoester which is represented by the following general formula (7):



wherein R<sup>15</sup> is a hydrogen atom, an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18, and each of R<sup>16</sup>, R<sup>17</sup>, and R<sup>18</sup> is an alkyl group having a carbon number of 1 to 10, an aryl group having a carbon number of 6 to 18, or an aralkyl group consisting of an alkylene portion having a carbon number of 1 to 10 and an aryl portion having a carbon number of 6 to 18.

23. (Previously Presented) A spherical annular seal member according to claim 20, 21 or 22, wherein said lubricating composition contains 70 - 90 wt.% of boron nitride and 10 - 30 wt.% of at least one of alumina and silica.

24. (Previously Presented) A spherical annular seal member according to claim 20, 21 or 22, wherein said lubricating composition further contains polytetrafluoroethylene resin.

25. (Previously Presented) A spherical annular seal member according to claim 20, 21 or 22, wherein said lubricating composition contains a mixture consisting of 70 - 90 wt. % of boron nitride and 10- 30 wt. % of at least one of alumina and silica, and further contains not more than 200 parts by weight of polytetrafluoroethylene resin with respect to 100 parts by weight of said mixture.

26. (Previously Presented) A spherical annular seal member according to claim 20, 21 or 22, wherein said lubricating composition contains a mixture consisting of 70 - 90 wt. % of boron nitride and 10 - 30 wt. % of at least one of alumina and silica, and further contains 50 to 150 parts by weight of polytetrafluoroethylene resin with respect to 100 parts by weight of said mixture.

27. (Previously Presented) A spherical annular seal member according to any one of claims 17 to 22, wherein said heat-resistant material containing said expanded graphite and said organic phosphorus compound of said spherical annular base member is exposed on said cylindrical inner surface.

28. (Previously Presented) A spherical annular seal member according to any one of claims 17 to 22, wherein said reinforcing member constituted by said metal wire net of said spherical annular base member is exposed on said cylindrical inner surface.

29. (Previously Presented) A spherical annular seal member according to any one of claims 17 to 22, wherein said heat-resistant material containing said expanded graphite and said organic phosphorus compound of said spherical annular base member is exposed on at least one of said annular end faces.